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CONFERENCE ON USE OF RADIOACTIVE COBALT FOR THERAPEUTIC PURPOSES

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[Comment: The following report summarizes a long Russian report which lists papers read at the conference. The names, affiliations, and topics of the authors, together with brief summaries of the papers, are given in the source.]

To get a first-hand view of the vast possibilities for the use of radioactive cobalt in medical practice and to coordinate the knowledge acquired in recent years, a conference was arranged by the Central Scientific-Research Roentgenological and Radiological Institute of the Ministry of Health USSR. More than 300 delegates from all parts of the USSR came to Leningrad for the conference, which lasted from 26 to 29 January 1953.

The main problem before this conference was to determine just how superior or inferior radioactive cobalt was to any other type of penetrating radiation and the practicability of substituting it for natural radioactive elements.

Experience in the use of radioactive cobalt demonstrated its therapeutic value and superiority over radium preparations. Radioactive cobalt causes less damage to the normal tissues which are inevitably exposed during all types of radiation therapy and causes fewer and less pronounced general and local reactions than do the natural radioactive substances.

Radioactive cobalt was used successfully in the treatment of malignant neoplasms of the skin, lips, and oral cavity, and in cancer of the throat, pharynx, breast, bladder, and male and female genitalia. A few negative factors have been noted in the use of radioactive cobalt. Measures have been taken, however, to overcome them.

The primary effect of therapeutic doses of cobalt appears to be a lasting, specific, stimulating activity. Due to the fact that radioactive cobalt radiation is characterized by considerable homogeneity, there is a possibility that the strength of the dose can be diminished for local exposure and increased for the treatment of diseases of internal organs.

A resolution passed by the conference recommended that scientific research establishments work on methods for improving and developing the therapeutic utilization of radioactive cobalt in the treatment of cancer of the lungs, esophagus, colon, prostate glands, and at other localized sites. The use of the rotation method was foreseen as the most promising in this respect.

The resolution also called for the publishing of a manual on the therapeutic use of radioactive cobalt which would contain brief instructions on the installation of the teleradium apparatus and rules covering its safe use. It was also decided that, since production of radioactive cobalt is adequate in the USSR, it would be possible to supply radioactive cobalt to a large number of oncological and other therapeutic establishments and thereby expand the area of its utilization.

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The general problem of utilizing radioactive cobalt was broken up into the following five categories:

1. Physics, dosimetry, and the technique of applying radioactive cobalt
2. Biological characteristics of radioactive cobalt
3. Treatment of malignant neoplasms with radioactive cobalt
4. Use of radioactive cobalt in the treatment of internal diseases
5. Application of radioactive cobalt in gynecological practice

The conference was opened by Ye. G. Prazdnikova, who represented the Ministry of Health of the USSR. The keynote speech was delivered by M. N. Pobedinskiy, the director of the Central Scientific-Research Roentgenological and Radiological Institute of the Ministry of Health USSR. "Radioactive cobalt," he said, "has already replaced roentgen rays and radium in medical practice; it holds real hope for the future."

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